Journal of Non-Crystalline Solids 123 (1990) ix–xi
North-Holland

CONTENTS

Preface, O.V. Mazurin vii
Organizing/programme committees viii
Sponsorship viii
Contents ix

Genesis of concepts on structure of inorganic glasses
Porai-Koshits, E.A. 1
Topologically disordered networks of rigid polytopes
Gupta, P.K. and A.R. Cooper 14
Computer-modelling studies of 4–2 coordinated glasses
Gladden, L.F. 22
Computer modeling of glass behavior
Rekhson, S.M. 26
Computation simulation of ionic liquid transition into vitreous state by the Monte Carlo method
Shiff, V.K. 36
Molecular dynamics and ^{19}F NMR investigation of mixed alkali fluoride glasses
Uhlherr, A., D.R. MacFarlane and T.J. Bastow 42
Computer simulation of glass structures
Soules, T.F. 48
Structure of borate glasses containing heavy metal ions
Yasui, I., H. Hasegawa, Y. Saito and Y. Akasaka 71
Theories of relaxation
Scherer, G.W. 75
Critical cooling rate calculations for glass formation
Weinberg, M.C., B.J. Zelinski, D.R. Uhlmann and E.D. Zanotto 90
Glass formation and crystallization
Gutzow, I., I. Avramov and K. Kästner 97
Glass formation and crystallization in high-temperature glass-ceramics and Si_3N_4
Drummond III, C.H. 114
Diffraction studies of glass structure
Wright, A.C. 129
Non-diffraction spectroscopic probes of the structure of amorphous solids
Elliott, S.R. 149
Pure nuclear quadrupole resonance spectroscopy studies of the structure of glasses
Gravina, S.J., P.J. Bray and G.L. Petersen 165
Remembrances of things past; silicon and sodium local environments in sols, gels, glasses and aqueous solutions
De Jong, B.H.W.S., R. Janssen and W.S. Veeman 170
Structures of gallate, aluminate and titanate glasses
Sakka, S., H. Kozuka, K. Fukumi and F. Miyaji 176

The structure and vibrational excitations of simple glasses
Galeener, F.L. 182
Phase separation of glasses
Tomozawa, M., V. McGahay and J.M. Hyde 197
Science and technology of laser glass
Weber, M.J. 208
Non-linear optical investigations of glass structure
Aleksandrov, I.V., Z.V. Nesterova and G.T. Petrovskii 223
Light scattering in AgI containing superionic glasses
Fontana, A., R. Rocca and A. Tomasi 230
The photostimulated reorientation of color centers in silicate glasses
Glebov, L.B., V.G. Dokuchaev and M.A. Petrov 234
On the optical properties of glasses
Petrovskii, G.T. 240
Localized states of silicon dioxide, sodium and lead silicate glasses
Trukhin, A.N. 250
Photochemical properties of activated glass
Arbuzov, V.I. and M.N. Tolstoi 258
Porous glass optics
Altshuler, G.B., V.A. Bakhanov, E.G. Dulneva and G.P. Roskova 266
Dual luminescence of Cu^+ in glass
Debnath, R. and S. Kumar 271
Polyanionic glasses: The features of properties and structure
Khodakovskaya, R.Ya. 275
New insights into the structure of akali borate glasses
Kamitsos, E.I., G.D. Chryssikos and M.A. Karakassides 283
Medium-range order of radiation modified silica glasses studied by spectroscopic and optical methods
Konstantinov, A.V., L.V. Maksimov, A.R. Silin and O.V. Yanush 286
EXAFS study on zinc halide glasses
Kadono, K., H. Kageyama, N. Kamijo and H. Tanaka 291
Kinetic X-ray absorption studies and computer structural modelling of photo-darkening in amorphous arsenic sulfide
Lee, J.M., M.A. Paesler, D.E. Sayers and A. Fontaine 295
Short range order in $AgI : Ag_2O : B_2O_3$ glasses: results from EXAFS and related techniques
Dalba, G., P. Fornasini and F. Rocca 310
Peculiarities of alkali/thallium ion exchange in oxide glasses: aspects of thermodynamics and kinetics for generation of optical waveguide layers
Kaps, Ch. 315
Ionic conductivity in glass network
De Marchi, G., P. Mazzoldi and A. Miotello 321
Effect of mixing mobile ions in glasses on transport processes
Boksay, Z. 324
Ionically conductive sulfide-based lithium glasses
Kennedy, J.H., Z. Zhang and H. Eckert 328
The role of rare-earth ions in electronically conducting glasses
Hogarth, C.A. and M.N. Khan 339
Viscosity of aluminosilicate glasses of $R_2O(RO) \cdot Al_2O_3 \cdot 6SiO_2$ composition
Varshal, B.G. 344

Development, structure, properties and application of glass-ceramics for medicine
Vogel, W. and W. Höland 349
Oxidation–reduction equilibrium in glass
Paul, A. 354
New methods of forming glasses and related amorphous solids
Soga, N. 363
Recent applications of glass science
Kreidl, N.J. 377
New glass-forming systems and their practical application
Gan, F. 285
Problems in electric melting of glass
Staněk, J. 400
Annealing and tempering of glass
Guillemet, C. 415
Kr-induced mixing and annealing effects at the Fe/SiO_2 interface
Battaglin, G., S. Lo Russo, A. Paccagnella, P. Polato and G. Principi 427
Influence of ion-implantation on crystallization of $PbO-B_2O_3-ZnO$ glass
Wang, C. and B. Wang 432

Author index 435
Subject index 438